

Serial No. 09/554,090
Amendment Dated: June 23, 2003
Decision on Appeal heard April 2, 2003

IN THE CLAIMS

1-12 (Canceled)

13. (Previously Amended) The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, hydroxylamine, alkanolamines, alkylamines and mixtures thereof.

14. (Previously Amended) The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, mono-ethanolamine and di-ethanolamine.

15. (Previously Amended) The process according to Claim 24, wherein the acid monomer component is neutralized with said nitrogen compound up to a neutralization level of from 10 to 100%.

16. (Previously Amended) The process according to Claim 24, wherein monomers based on acrylic acid, methacrylic acid or derivatives of these carboxylic acids are subjected to polymerization,

17. (Canceled)

18. (Previously Amended) The process of Claim 24, wherein said partially water-soluble monomer is vinyl acetate.

Serial No. 09/554,090
Amendment Dated: June 23, 2003
Decision on Appeal heard April 2, 2003

19. (Previously Amended) The process according to Claim 24, wherein at least one crosslinker based on a bi- or polyfunctional monomer is used in addition.

20. (Previously Amended) The process according to Claim 24, wherein the polymer product is heated at a temperature of from 140 to 180°C.

21. (Previously Amended) The process according to Claim 24, wherein polymer products having a content of residual monomer of less than 50 ppm are formed.

22. (Previously Amended) The process according to Claim 24, wherein polymer products having a content of residual monomer of less than 30 ppm are formed.

23. (Previously Amended) The process according to Claim 24, wherein polymer products having a residual content of acrylamide of less than 10 ppm are formed.

24. (Previously Added) A process for producing a water-soluble or water-swellaable polymer or copolymer comprising, providing an acid monomer or monomers alone, or with a comonomer or comonomers; partially or completely neutralizing said monomer or monomers with a basic nitrogen compound or compounds; free-radical polymerizing said monomer or monomers alone, or with comonomer or comonomers to form said water-soluble or water-swellaable polymer or copolymer, wherein said free-radical polymerizing is started at a temperature of from 0 to 50°C and is performed in aqueous solution at a maximum temperature of no more than 102-104°C; and subsequently, subsequent to completion of said

Serial No. 09/554,090
Amendment Dated: June 23, 2003
Decision on Appeal heard April 2, 2003

free-radical polymerizing step, heating said water-soluble or water-swellaable polymer or copolymer at a temperature of from 120 to 240°C.

25. (Previously Added) The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, aliphatic mono- and polyamines, cycloaliphatic mono- and polyamines, aromatic mono- and polyamines, heterocyclic amines hydroxylamine and alkanolamines.

26. (Previously Added) The process according to Claim 24, wherein said monomer or monomers are acrylic acid, methacrylic acid, maleic acid, fumaric acid, itaconic acid, vinyl sulfonic acid or acrylamidopropanesulfonic acid.

27. (Previously Added) The process according to Claim 24, wherein said comonomer or comonomers are acrylonitrile, methacrylonitrile, N,N-dimethylacryl amide, vinylpyrrolidone, vinylpyridine, vinyl acetate, hydroxyl group-containing esters of polymerizable acids, amino group-containing and ammonium group-containing esters and amides of polymerizable acids, C₁-C₁₀ alcohol esters of acrylic and/or methacrylic acid or esters of acrylic and/or methacrylic acid with styrene or alkylated styrene.

28. (Previously Added) The process according to Claim 24, wherein said heating is carried out for a time period between 10 minutes and 2 hours.

29. (Previously Added) The process according to Claim 20, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

Serial No. 09/554,090
Amendment Dated: June 23, 2003
Decision on Appeal heard April 2, 2003

30. (Previously Added) The process according to Claim 24, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

31. (Previously Added) The process according to Claim 20, wherein said heating is carried out for a time period between 10 minutes and 2 hours.